

**Montana Board of Oil and Gas Conservation
Environmental Assessment**

Operator: Balko Inc.
Well Name/Number: State A 2X
Location: NE NE SE Section 16 T27N R3W
County: Pondera, MT; Field (or Wildcat) Pondera

Air Quality

(possible concerns)

Long drilling time: No, 3 to 4 days drilling time.

Unusually deep drilling (high horsepower rig): No, small single derrick drilling rig, about 500 HP (Estimated) to drill to 2100' TD Madison Formation.

Possible H₂S gas production: Slight H₂S anticipated.

In/near Class I air quality area: No not in a Class I air quality area.

Air quality permit for flaring/venting (if productive): Yes, DEQ air quality permit required under 75-2-211.

Mitigation:

☒ Air quality permit (AQB review)

☐ Gas plants/pipelines available for sour gas

☐ Special equipment/procedures requirements

☐ Other: _____

Comments: No special concerns – using small rig to drill to 2000' TD.

Water Quality

(possible concerns)

Salt/oil based mud: No, freshwater, freshwater mud system, air and/or air mist.

High water table: No high water table anticipated.

Surface drainage leads to live water: No, drainages within a ½ mile radius around this location.

Water well contamination: No water wells within a one mile radius from this location.

Surface hole in this well will be drilled to 300' with freshwater and/or air. Steel surface casing will be run and cemented to surface to protect ground water. (Rule 36.22.1001), if any.

Porous/permeable soils: No, silty bentonitic soils.

Class I stream drainage: No Class I stream drainages.

Mitigation:

☐ Lined reserve pit

☒ Adequate surface casing

☐ Berms/dykes, re-routed drainage

☐ Closed mud system

☐ Off-site disposal of solids/liquids (in approved facility)

☐ Other: _____

Comments: 300' of surface casing cemented to surface adequate to protect freshwater zones (Rule 36.22.1001) Also, air/air mist and/or fresh water mud systems to be used.

Soils/Vegetation/Land Use

(possible concerns)

Stream crossings: No, stream crossings anticipated.
High erosion potential: No, small cut, up to 2.1' and small fill, up to 2.8', required.
Loss of soil productivity: No, location will be restored after drilling, if nonproductive. If productive unused portion of drillsite will be reclaimed.
Unusually large wellsite: No, 200'X100' location size required.
Damage to improvements: Slight, surface use on the edge of a cultivated field and grassland area.
Conflict with existing land use/values: Slight

Mitigation

- ☐ Avoid improvements (topographic tolerance)
- ☐ Exception location requested
- ☒ Stockpile topsoil
- ☐ Stream Crossing Permit (other agency review)
- ☒ Reclaim unused part of wellsite if productive
- ☐ Special construction methods to enhance reclamation
- ☐ Other _____

Comments: Access will be over existing county gravel road Pondera Oil Field Lease Road. No new access road will be built into this location. Cuttings will be buried in and unlined earthen pit. Drilling fluids if used will be allowed to dry in the pit. Pits will be backfilled after drying. No special concerns.

Health Hazards/Noise

(possible concerns)

Proximity to public facilities/residences: Closest residence is about 1.6 miles to the northwest and 1.4 miles to the south from this location. The town of Pendroy, Montana is about 8.6 miles to the southwest from this location.

Possibility of H2S: Slight H2S anticipated.

Size of rig/length of drilling time: Small drilling rig/short 3 to 4 days drilling time.

Mitigation:

- ☒ Proper BOP equipment
- ☐ Topographic sound barriers
- ☐ H2S contingency and/or evacuation plan
- ☐ Special equipment/procedures requirements
- ☐ Other: _____

Comments: Adequate surface casing and operational BOP (3,000 psi annular) should mitigate any problems. (BOP's 3,000 psig annular) Rule 36.22.1014. No concerns

Wildlife/recreation

(possible concerns)

Proximity to sensitive wildlife areas (DFWP identified): None identified.

Proximity to recreation sites: None identified.

Creation of new access to wildlife habitat: No

Conflict with game range/refuge management: No

Threatened or endangered Species: Only species identified as threatened or endangered are the Piping Plover, Grizzly Bear and the Canada Lynx. Candidate species listed is the Sprague's Pipit, and the White Bark Pine. NH tracker website lists zero (0) species of concern and two (2) potential species of concern: Brook Stickleback and Brassy Minnow.

Mitigation:

- ☐ Avoidance (topographic tolerance/exception)
- ☐ Other agency review (DFWP, federal agencies, DSL)
- ☐ Screening/fencing of pits, drillsite
- ☐ Other: _____

Comments: State of Montana leased cultivated surface lands. There may be possible historical/cultural/paleontological sites that maybe impacted by this wellsite. We ask the operator to consult with the surface owner as to his desires to preserve these sites or not, if they are found during construction of the wellsite. State of Montana "Trust Lands" minerals and surface. Trust Lands will do surface EA.

Historical/Cultural/Paleontological

(possible concerns)

Proximity to known sites: None identified

Mitigation

- ☐ avoidance (topographic tolerance, location exception)
- ☐ other agency review (SHPO, DSL, federal agencies)
- ☐ Other: _____

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Social/Economic

(possible concerns)

- ☐ Substantial effect on tax base
- ☐ Create demand for new governmental services
- ☐ Population increase or relocation

Comments: No concerns.

Remarks or Special Concerns for this site

Well is a 2100' Madison Formation test.

Summary: Evaluation of Impacts and Cumulative effects

No long term impacts expected. Some short term impacts will occur, but can be mitigated.

I conclude that the approval of the subject Notice of Intent to Drill (does/**does not**) constitute a major action of state government significantly affecting the quality of the human environment, and (does/**does not**) require the preparation of an environmental impact statement.

Prepared by (BOGC): /s/ John Gizicki

(title:) Compliance Specialist

Date: April 22, 2014

Other Persons Contacted:

Montana Bureau of Mines and Geology, GWIC website
(Name and Agency)

Pondera County water wells.
(subject discussed)

April 22, 2014 (date)

US Fish and Wildlife, Region 6 website
(Name and Agency)

ENDANGERED, THREATENED, PROPOSED AND CANDIDATE SPECIES
MONTANA COUNTIES, Pondera County
(subject discussed)

April 22, 2014
(date)

Montana Natural Heritage Program Website (FWP)
(Name and Agency)

Heritage State Rank= S1, S2, S3, T27N R4W
(subject discussed)

April 22, 2014
(date)

If location was inspected before permit approval:

Inspection date: _____

Inspector: _____

Others present during inspection: _____